

## REMARKS

Applicants have carefully considered this Application in connection with the Examiner's Office Action, and respectfully request reconsideration of this Application in view of the above amendments and the following remarks.

Claims 1-41, and 58-73 are withdrawn.

Claims 42, 52, and 53, are currently amended.

Claims 43-45, 47-50, and 54-55, have been cancelled.

### **I. Objection to the Specification**

The Examiner has objected to the specification, stating that it does not provide proper antecedent basis for Claim 50. Claim 50 has been cancelled, and Applicants believe that this will overcome the objection.

### **II. Claim Rejections under 35 USC §112**

The Examiner has rejected Claims 50 and 54 under 35 USC §112, second paragraph, for being indefinite. Claims 50 and 54 have been cancelled, and Applicants believe that this will overcome the rejection.

### **III. Claim Rejections under 35 USC §103**

The Examiner has rejected Claims 42-57 as being obvious over the Meikle Reference (WO 00/55632) in view of Chandler et al. (U.S. 6,449,562).

The Examiner states that the Meikle Reference describes that a combination of biochemical markers such as saposins A, B, C, D,  $\alpha$ -glucosidase, LAMP-1, and LAMP-2, can be detected for the diagnosis of LSD. The current claims, as amended, recite the addition of  $\alpha$ -iduronidase to result in a

more reliable method for diagnosing LSD. Therefore the current claims, as amended, recite additional elements not disclosed in the cited references.

Moreover, it cannot be said that, because a certain biomarker is indicative of disease state, another totally distinct biomarker will also be indicative. Therefore, the lack of disclosure in the Meikle Reference with respect to  $\alpha$ -iduronidase means that the reference could not have rendered the currently claimed methods obvious to one of skill in the art.

The Meikle Reference also does not describe measuring a quantity of  $\alpha$ -iduronidase or  $\alpha$ -glucosidase and determining the proportion of that quantity to a quantity of either LAMP-1 or saposin C, which is recited in the current claims, as amended. The currently claimed method is a more accurate way of determining the presence of an LSD. This method has been determined experimentally and is first presented in the present application.

The Examiner states that the Chandler Reference teaches exposing a pooled population of target capture microspheres to a sample, the target microspheres having distinct subsets, and each distinct subset having characteristic parameters that distinguish the target capture microsphere of one subset from those of another target capture subset. However, the current claims, as amended, recite specific capture antibodies which are useful in the specific application. There is no teaching in the Chandler Reference that would identify the currently claimed biomarkers as useful in any particular application, and no motivation for comparing ratios of different biomarker levels determined using microsphere technology.

Neither the Meikle nor the Chandler Reference describes the currently claimed target antigens for LSD diagnosis, or the calculation of ratios between the target antigens. Therefore, neither of these references, alone or in combination with the knowledge of the field, would have motivated one of skill in the art to practice the currently claimed methods.

#### IV. Conclusion

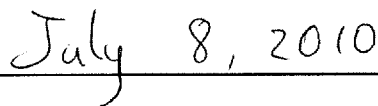
Applicants respectfully submit that, in light of the foregoing comments, all pending claims are in condition for allowance. A Notice of Allowance is therefore requested.

If the Examiner has any other matters which pertain to this Application, the Examiner is encouraged to contact the undersigned to resolve these matters by Examiner's Amendment where possible.

Respectfully submitted,



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Date